PHASE I BOOK EXPLOITATION SOV/4752

Moscow. Institut stali

Proizvodstvo i obrabotka stali i splavov (Production and Treatment of Steel and Alloys) Moscow, Metallurgizdat, 1960. 442 p. (Series: Its: Sbornik, 39) 2,100 copies printed.

Ed.: Ye. A. Borko; Ed. of Publishing House: S. L. Zinger; Tech. Ed.: M. R. Kleyman; Editorial Council of the Institute: M. A. Glinkov, Professor, Doctor of Technical Sciences; R. W. Grigorash, Docent, Candidate of Technical Sciences; V. P. Yelyutin, Professor, Doctor of Technical Sciences; A. A. Zhukhovitskiy, Professor, Doctor of Chemical Sciences; I. N. Kidin, Professor, Doctor of Technical Sciences; B. G. Livshits, Professor, Doctor of Technical Sciences; A. P. Lyubimov, Professor, Doctor of Technical Sciences; I. M. Pavlov, Corresponding Member, Academy of Sciences USSR; and A. N. Pokhvisnev, Professor, Doctor of Technical Sciences.

PURPOSE: This book is intended for technical personnel in industry, scientific institutions and schools of higher education, dealing with open-hearth and electric-furnace steelmaking, metal rolling, physical metallurgy, metallography, and heat treatment. It may

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also be used by students specializing in these fields.

COVERAGE: The book contains results of theoretical and experimental investigations of metallurgical and heat-engineering processes in open-hearth and electric furnaces. Data are included on the following: desulfurizing of pig iron outside the blast furnace, interaction of oxides of the carbide-forming metals with solid carbon, the change of content of gases in the bath of the open-hearth furnace in various periods of melting, intensification of the electric melting of steel, etc. Other articles deal with the nonuniformity of deformation in rolling, the study of the continuous rolling process, the dependence of the friction-slippage coefficients in rolling on a number of factors, and other problems in the pressworking of metals. Articles on physical metallurgy and the theoretical principles and techniques of the heat treatment of steel are also included. No personalities are mentioned. References accompany most of the articles. There are 207 references, both Soviet and non-Soviet.

Card 2/10

Card 9/10

D'YAKOV, Vasiliy Ivanovich; GETLING, B.V., kand. tekhn. nauk, red.; TYUTYUNIK, M.S., red.; TOKER, A.M., tekhn. red.

[Standard designs of electric equipment; electrician's manual] Tipovye raschety po elektrooborudovaniiu; v pomoshch' tsekhovym elektrikam. Izd.2., perer. i dop. Pod red. B.V.Getlinga. Moskva, Vses. uchebno-pedagog. izd-vo Proftekhizdat, 1961. 125 p. (MIRA 14:7)

(Electric apparatus and appliances)

GETLING, Boris Vladimirovich; BARANOVSKIY, M.A., nauchnyy red.; KOPYLOV, V.P., nauchnyy red.; KOBRINSKAYA, M.V., red.; TOKER, A.M., tekhn. red.

[Reading circuits and diagrams of electrical systems] Chtenie skhem i chertezhei elektroustanovok. Moskva, Vses. uchebno-pedagog. izd-vo Proftekhizdat, 1961. 195 p. (MIRA 14:8)
(Electric circuits) (Electric networks)

PETROV, Vadim Konstantinovich [deceased]; SHLYAPINTOKH, Lev Samoylovich; GETLING, B.V., nauchn. red.; MUPKINA, V.G., red.

[Collection of problems in electrical engineering with industrial electronics fundamentals] Sbornik zadach po elektrotekhnike s osnovami promyshlennoi elektroniki. Moskva, Vysshaia shkola, 1965. 174 p. (MIRA 18:7)

AUTHORS: Getling, R.V., Savinova, [illegible]

TITLE: Some Data on the Boron Content of Igneous Rocks in the Turinskoye Ore Field, Ural Mountains (Nekotoryye dannyye o [illegible] nii bora v izverzhennykh porodakh Turinskogo rudnogo poly. na Urale)

PERIODICAL: Geokhimiya, 1956, Nr [illegible], pp. [illegible] - [illegible] (USSR)

ABSTRACT: 26 samples of various rocks were investigated in order to determine their boron content (quartz spectrograph ISP-22):

Intrusive rocks and preskarnian vein rocks	(circa 0,005%)
Effusive rocks	(circa 0.006%)
Postskarnian vein rocks (lamprophyres)	(circa 0.002%)

In these rocks no boron minerals occur. The boron is contained mainly in plagioclase, as is shown by the investigation of the monomineral fractions (results in Table 2). This improves the statement of Sahama (Ref 14) that boron is concentrated mainly in dark minerals. The authors plotted a great number of boron analyses on a diagram, in order to find a dependence of the boron content on the composition of the rock. It was found that the increased boron contents are due to a magma even richer in boron. The rocks of

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Some Data on the Boron Content of Igneous [illegible] in the [illegible] SOV/[illegible]
Tur'inskoye ore field, [illegible] Mountains

Tur'inskoye [illegible] the [illegible] show [illegible] mean boron content. To this corresponds also the occurrence of datolite-mineralization in the Vadimo-Aleksandrovskoye deposit in the Tur'inskoye ore field. There are [illegible] figures, 2 tables, [illegible] references, 7 of which are Soviet

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V. I. Vernadskogo AN SSSR, Moskva (Moscow Institute of Geochemistry and Analytical Chemistry im. Acad. V. I. Vernadskiy AS USSR)

SUBMITTED: March 2[illegible], 1958

1. Rock--Analysis 2. Boron--Determination

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3(3), 3(0)

SOV/-[illegible]-1

AUTHORS: Getling, R. V., Savinova, Ye. N.

TITLE: On the Boron Distribution in Rocks and Skarn Minerals of the Yadimo-Aleksandrovskoye Datolite Deposit (Churinskoye Ore Field, Northern Ural) (O raspredelenii bora v porodakh i skarnovykh mineralakh Yadimo-Aleksandrovskogo datolitovogo mestorozhdeniya (Chur'inskoye rudnoye pole, Severnyy Ural)

PERIODICAL: Geokhimiya, 1959, Nr 1, pp 38-45 (USSR)

ABSTRACT: The deposit belongs to the Eastern part of the Tur'ya geosyncline and consists of effusive- and metamorphous sedimentary rocks of the middle Devon. Variscan intrusions of gabbro, gabbro-diorites, and quartz diorites as well as veins of diorite-porphyrites and lamprophyres pierce through the Devon rocks. Various types of skarns are spread throughout the deposit. Their boron content was determined by means of a spectrum analysis (Ref 2). The boron content of igneous rocks which was investigated in a previous study is 0.0[illegible] - 0.003% (Ref 2). The following averages were found: sedimentary-metamorphous complex 0.004% (Table 1), rocks contiguous to the skarn 0.003% (Table 2). Garnet skarns almost entirely free from boron (Table 3), garnet-wollastonite and wollastonite

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On the Boron Distribution in Rocks and Skarn Minerals of the Valimo-Aleksandrovskoye Datolite Deposit (Murinskoye Ore Field, Northern Ural) SOV/7-59-1-5/14

skarns: wollastonite with 0.009% (Table 4), garnets with 0.04% (Table 5), epidote-skarns 0.002% boron. Summarizingly there is to be said: boron is concentrated in hornfels, in garnet from garnet-wollastonite skarns, in epidote, in the rocks contiguous to the skarn, and in igneous rocks. The boron content of hornfels is possible due to the sponges which concentrated boron obtained from the sea-water. In the processes resulting from contact with the contiguous rocks boron is not removed from the igneous rocks. The boron content of wollastonites is caused by mechanical datolite admixtures as was shown by the x-ray analysis carried out by K. V. Pelotova. Garnets from garnet skarns are usually free from boron while boron was supplied during the transformation into epidote. The absence of boron minerals from the skarns shows that boron acted as a completely mobile component and had a low chemical potential. Datolite was formed by the reaction with silicate material in limestone. Boron-free garnets in skarn deposits do not constitute a criterion for the presence of datolite; an increased boron content, however, is highly indicative of

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SOV/7-[illegible]-1-[illegible]/14

On the Boron Distribution in Rocks and Skarn Minerals of the Talimo-Aleksandrovskoye Batolite Deposit (Nur'inskoye Ore Field, Eastern Ural)

[illegible] biotite mineralization. The authors thank V. V. Shcherbina and V. L. [illegible]arenkov for their valuable advice and suggestions. [illegible] A. Yaroshevskiy determined the light refraction and specific weight of garnets. There are [illegible] tables, and 1[illegible] references, [illegible] of which are Soviet.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V. I. Vernadskogo AN SSSR, Moskva
(Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy AS USSR, Moscow)

SUBMITTED: August 27, 1958

Card 3/3

GETLING, R.V.

Datolite in the vicinity of Bodrak in the Crimea and its genetic characteristics. Zap. Vses. min. ob-va 89 no.1:102-106 '60.
(MIRA 13:10)

1. Institut geokhimii i analiticheskoy khimii imeni V.I. Vernadskogo AN SSSR, Moskva.
(Bodrak region—Datolite)

GETLING, R.V.

Axinite from the Kyzyl-Espe deposit. Zap.Vses.min.ob-va 94 no.5:607-612 '65.

(MIRA 18:11)

1. Moskovskiy gosudarstvennyy universitet, geologicheskiy fakul'tet.

a2

Methyl rubber. V. A. Getling and N. V. Zhilanova. *Sintet. Kauchuk* 1959, No. 5, 18–23. A historical review of dimethylbutadiene synthetic rubber research. J. S.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

CA

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Hydrogenation of Dubroval vapor-phase cracked gasoline. V. Getling, A. Sosnina and L. Stepantsev. *Novosti Tekhniki* 1936, No. 19, 31-3.—Data are given on the hydrogenation of gasoline obtained on the Dubroval vapor-phase cracking. The gasoline was hydrogenated in the presence of MoS_2 at 25-100 atm. and 400°. The ratios of gasoline vapors to H were 1:2, and 1:4. The most thorough hydrogenation was obtained at 100 atm. regardless of the gasoline/H ratio. A reduction in the pressure decreased the speed of hydrogenation. A drop in the temp. to 340° also reduced the speed of hydrogenation. The hydrogenated gasoline had a high stability, an octane no. of 71-72, and a good susceptibility to tetraethyl lead.

B. Z. Kamich

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

ERLIKH, V. N.

Preparation of certain high-molecular hydrocarbons. V. A. Hesling and V. V. Shrbekin. *J. Gen. Chem.* (Zh. Obshch. Khim.) 13, 717-21(1943)(English summary).—The hydrogenate of sunflower oil, after vapor. and steam distn., gave a mixt. of aliphatic acids: stearic, oleic, linoleic and palmitic. The mixt. (500 g.) was changed into an autoclave and, after addn. of 10% of Co chromite catalyst, was hydrogenated at 330-90°, with an initial H pressure of 120 atm. The resulting hydrocarbons were thoroughly fractionated *in vacuo*, to yield a narrow fraction of *octadecane*, b_{4}, 156-61°, m. 27°, n_D^{20} 1.4360, d_4^{20} 0.7788 (50-52% yield). A higher-boiling fraction (b_{4-5} 161-90°) contained some octadecanol and stearic acid. Reduction of the same amt. of the initial acid mixt. at 325° with the reaction being stopped after 1.5-2 hrs. (instead of 6 hrs.) gave, upon fractionation, 70-80% of almost pure *octadecanol*, b_{15} 207-12°, m. 56-7°; on a 2nd distn. the pure alc. was obtained, b_{20} 209-10°. Especially active batches of Adkins catalyst enabled the authors to effect the reduction at 230-50°. The octadecanol was converted into *octadecyl iodide* by heating with indiscr. red P or by heating with a current of dry HI; the product was converted into *octadecylbenzene* by the Fittig reaction, to give 60-65% crude product. Purified octadecylbenzene, after distn. over Na, b_{20} 249°, m. 35-6°, n_D^{20} 1.4751, d_4^{20} 0.8510; it dissolved completely in 3.5 vols. of 98-9% H_2SO_4 in 30 min. at room temp. Hydrogenated with Ni oxide at 140-160 atm. H pressure at 230-50°, it gave *octadecylcyclohexane*, b_{4-5} 210-12°, m. 41°, n_D^{20} 1.4531, d_4^{20} 0.8178; the same compd. was readily prepd. from cyclohexyl iodide and octadecyl iodide by the Wurtz reaction with very close correspondence of phys. consts.

G. M. Kosolapoff

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

GETLING, V.A.

New works of Soviet chemists (in the Department of Chemical Sciences). Vest.AN SSSR 24 no.4:87-88 Ap '54. (MLRA 7:5)

1. Otdeleniye khimicheskikh nauk. (Resins, Synthetic) (Insecticides) (Fertilizers and manures)

GETLING, V.A.

In the Department of Chemical Sciences; reports on high molecular.
Vest AN SSSR 25 no.8:74 Ag '55. (MLRA 9:1)

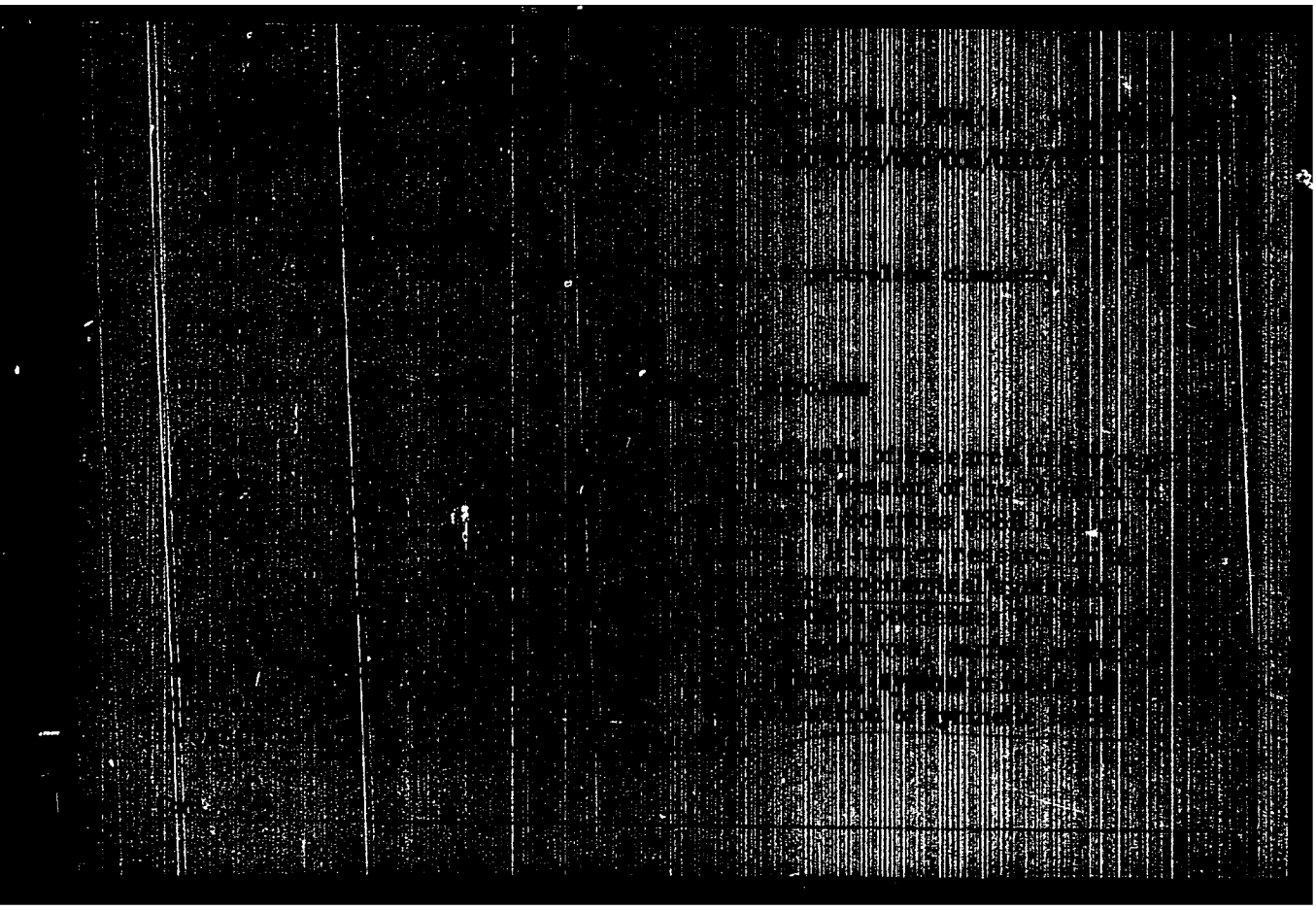
(High molecular weight compounds)

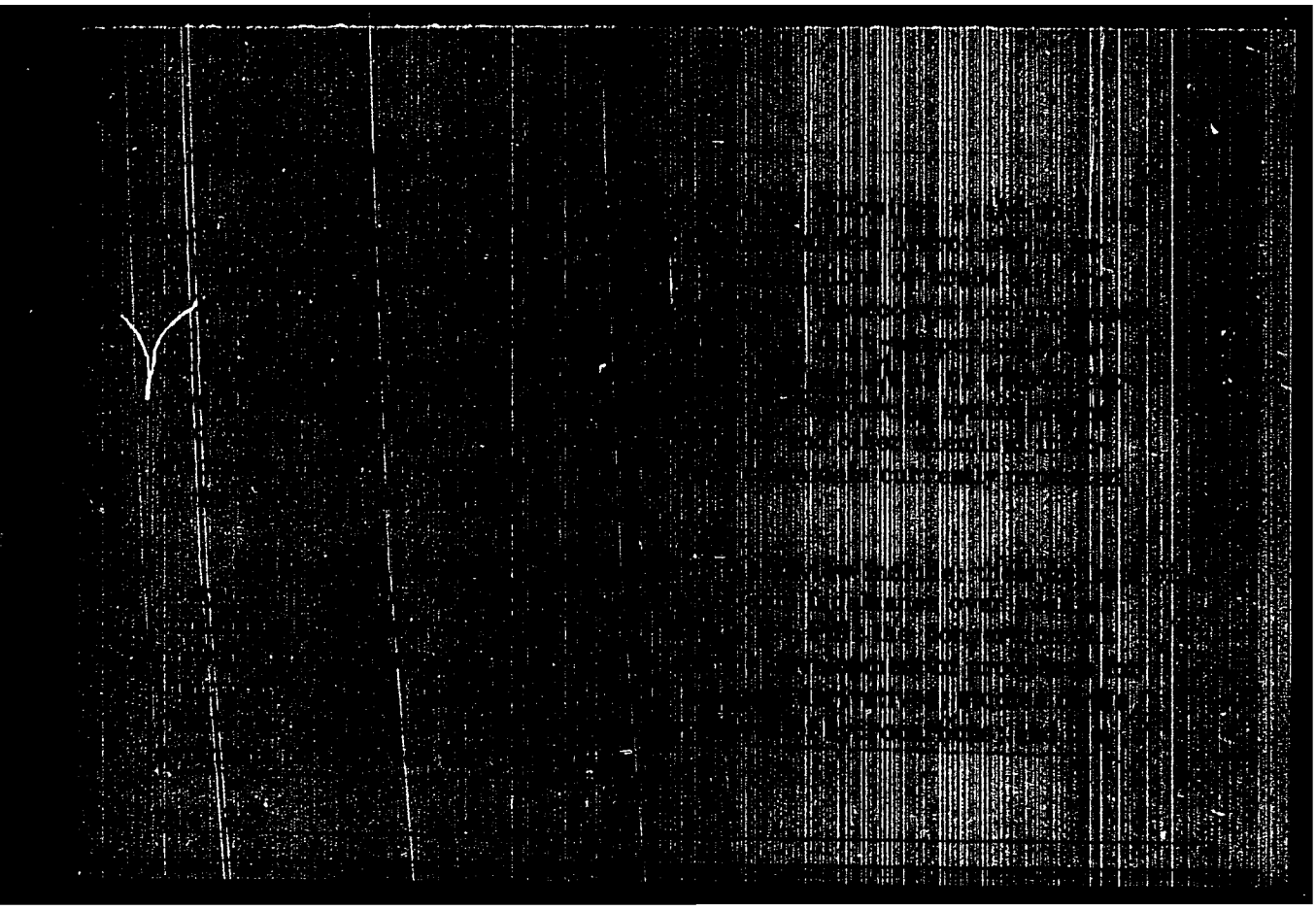
GETLING, V.A.

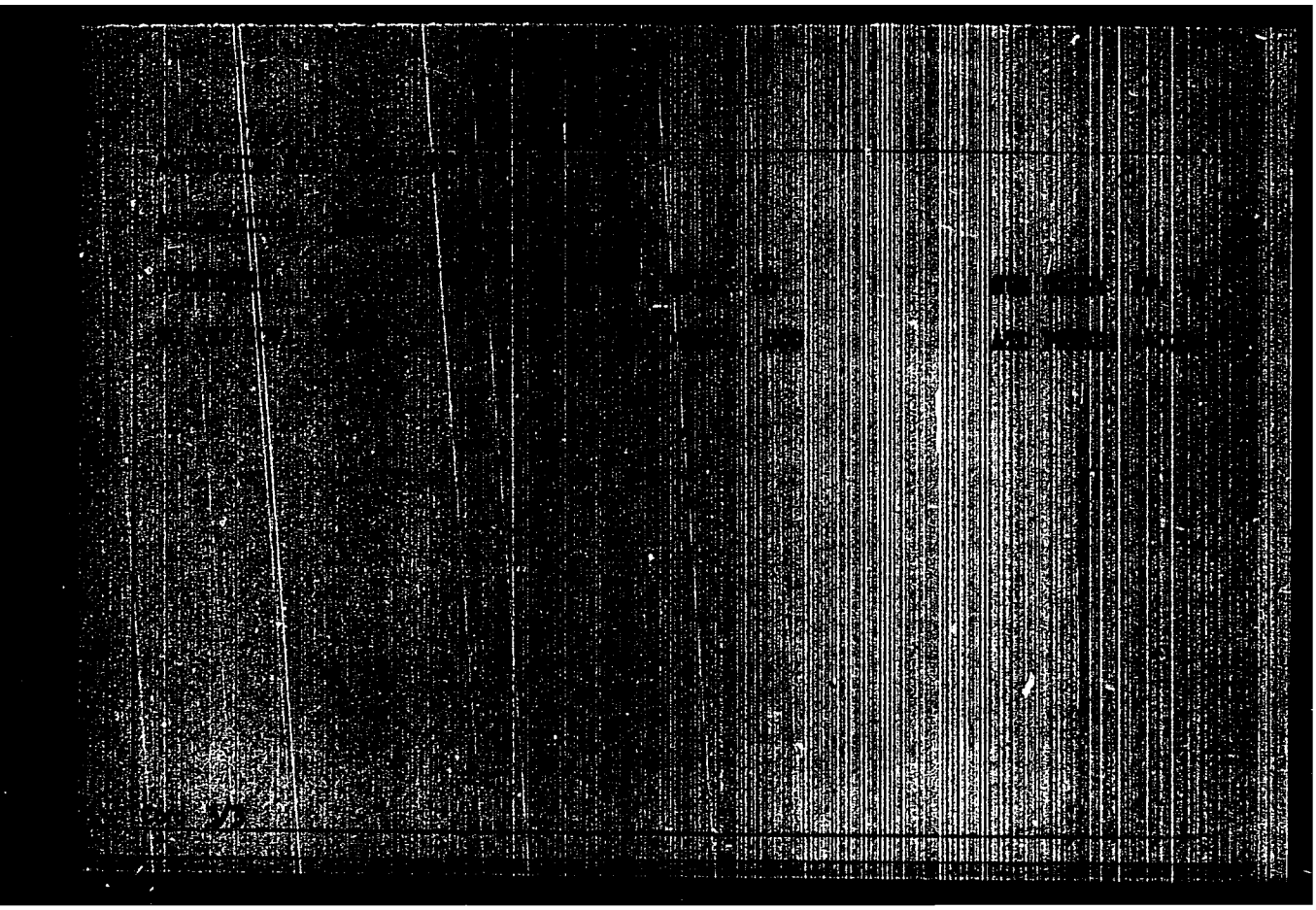
In the Department of Chemistry; regular general session. Vest.AN SSSR 26 no.12:102-103 D '56. (MLRA 10:1)
(Chemistry)

GETLING, V.A.

Important results of some theoretical works as reported at a meeting of the Department of Theoretical and Technical Chemistry. Vest. AN SSSR 34 no. 2:47-49 F '64. (MIRA 17:5)







GETLING, V.A.

Studies in the chemistry of complex compounds; conference at the Department of General and Technical Chemistry. Vest. AN SSSR 34 no.7:108-109 Jl '64 (MIRA 17:8)

GETLING, YU.

Getling, Yu. "Coal City", (Karpinsk, Sverdlovsk oblast. Synopsis), Ural'skiy sovremennik, No. 13, 1948, p. 188-208

SO: U-3264, 10 April 53, (Letopis 'Zhurnal 'nykh Statey, No. 4, 1949).

PEKAREVICH, Vladimir Matveyevich; SERGEYEV, Sergey Vasil'yevich; GETLING, Yu., red.; CHEMKO, L., tekhn. red.

[Developing the industries of Sverdlovsk Province during the years of the seven-year plan] Razvitie promyshlennosti Sverdlovskoi oblasti v gody semiletki. Sverdlovsk, Sverdlovskoe knizhnoe izd-vo, 1959. 82 p. (MIRA 15:3)

1. Nachal'nik planovo-ekonomicheskogo upravleniya Sverdlovskogo sovnarkhoza , Sverdlovskoy oblasti (for Pekarevich). 2. Zaveduyushchiy kafedroy politekonomii Ural'skogo politekhnicheskogo instituta imeni S.M.Kirova (for Sergeyev).
(Sverdlovsk Province--Industries)

DOLBILIN, Ivan Prokop'yevich, inzh.; UDILOV, Viktor Ivanovich, inzh.; KUDRYAVTSEV, N.F., inzh., retsenzent; GETLING, Yu., red.; GOLOBOKOVA, L., tekhn. red.

[Mechanization and automation in lumbering camps]Mekhanizatsiia i avtomatizatsiia na lesozagotovkakh. Sverdlovsk, Sverdlovskoe knizhnoe izd-vo, 1962. 96 p. (MIRA 16:1)
(Sverdlovsk Province—Lumbering—Machinery)

GANSHTAK, Vladimir Iosifovich, doktor ekon. nauk; ZHUKOV, Pavel Aleksandrovich, prof.; PETROV, V.V., inzh., retsenzent; GETLING, Yu., red.

[Production potentials are limitless! Based on the example of the machinery manufacturing enterprises of Sverdlovsk Province] Rezervy proizvodstva neischerpaemy. Na primere mashinostroitel'nykh predpriiatii Sverdlovskoi oblasti. Sverdlovsk, Sverdlovskoe knizhnoe izd-vo, 1963. 207 p. (MIRA 18:3)

1. Nachal'nik Upravleniya truda i zarabotnoy platy Sredne-Ural'skogo sovnarkhoza (for Petrov). 2. Politekhnicheskiy institut imeni S.M.Kirova (for Zhukov).

SMORKALOV, V.T., red.; KARDASH, F.G., st. vantsbik, red.; IVANOVA, Z.Ya., red.; SUDAKOVA, Yu., red.; VASIL'KEVICH, L.A., red.; GETLING, Yu., red.

[Plant of miraculous transformations; everyday work of the employees of the Tavda Hydrolyzing Plant] Zavod chudesnykh prevrashchenii, trudovye budni kollektiva Tavdinskogo gidroliznogo zavoda. Sverdlovsk, Sredne-Ural'skoe knizhnoe izd-vo, 1964. 50 p. (MIRA 18:4)

1. Direktor Tavdinskogo gidroliznogo zavoda (for Kardash). 2. Predsedatel' zavodskogo komiteta Tavdinskogo gidroliznogo zavoda, Ural (for Ivanova). 3. Sekretar' Vsesoyuznogo Leninskogo Kommunisticheskogo soyuza molodezhi (for Sudakova). 4. Nachal'nik planovogo otdela Tavdinskogo gidroliznogo zavoda, Ural (for Vasil'kevich).

GETLING, Yu.V.; YEFIMOV, A.M., doktor ekonomicheskikh nauk, redaktor; DUGINA, N.A., tekhnicheskiy redaktor

[For a better utilization of working space] Za luchshee ispol'zovanie proizvodstvennykh ploshchadei. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1954. 33 p. [Microfilm] (MLRA 8:2)
(Machinery industry)

GETLING, Yuriy Vladimirovich; ADAMOVA, L., red.; CHEMKO, L., tekhn. red.

[Sverdlovsk Province between the 21st and 22d Congresses of the CPSU]Mezhdu dvumia s"ezdami; Sverdlovskaia oblast' mezhdu XXI i XXII s"ezdami KPSS. Sverdlovsk, Sverdlovskoe knizhnoe izd-vo, 1961. 103 p. (MIRA 15:8)
(Sverdlovsk Province--Economic conditions)

CHUVATOV, V.V.; BEREZIN, N.N.; METSGER, E.Kh.; NAGIN, V.A.; KARTASHOV, N.A., kand. tekhn. nauk, dots.; MIL'KOV, N.V., kand. tekhn. nauk; BYCHKOV, M.I., kand. tekhn.nauk, dots.; SUKHANOV, V.P., SHLYAPIN, V.A.; KORZHENKO, L.I.; ABRAMYCHEV, Ye.P.; KAZANTSEV, I.I.; YARES'KO, V.F.; LUKOYANOV, Yu.N.; DUDAROV, V.K.; BALINSKIY, R.P.; KOROTKOVSKIY, A.E.; PONOMAREV, I.I.; NOVOSEL'SKIY, S.A., kand. tekhn.nauk, dots.; IL'INYKH, N.Z.; TSITKIN, N.A.; ROGOZHIN, G.I.; PRAVOTOROV, B.A.; ORLOV, V.D.; RACHINSKIY, M.N.; KULTYSHEV, V.N.; SMAGIN, G.N.; KUZNETSOV, V.D.; MACHERET, I.G.; SHEGAL, A.V.; GALASHOV, F.K.; ANTIPIN, A.A.; SHALAKHIN, K.S.; RASCHEKTAYEV, I.M.; TISHCHENKO, Ye.I.; FOTIYEV, A.F.; IPPOLITOV, M.F.; DOROSINSKIY, G.P.; ROZHKOV, Ye.P.; RYUMIN, N.T.; AYZENBERG, S.L.; GOLUBTSOV, N.I.; VUS-VONSOVICH, I.K., inzh., retsenzent; GOLOVKIN, A.M., inzh., retsenzent; GUSELETOV, A.I., inzh., retsenzent; KALUGIN, N.I., inzh., retsenzent; KRAMINSKIY, I.S., inzh., retsenzent; MAYLE, O.Ya., inzh., retsenzent; OZERSKIY, S.M., inzh., retsenzent; SKOBLO, Ya.A., dots., retsenzent; SPERANSKIY, B.A., kand. tekhn. nauk, retsenzent; SHALAMOV, K.Ye., inzh., retsenzent; VOYNICH, N.F., inzh., red.; GETLING, Yu., red.; CHERNIKHOV, Ya., tekhn. red.

[Construction handbook] Spravochnik stroitelia. Red.kollegiia: M.I. Bychkov i dr. Sverdlovsk, Sverdlovskoe knizhnoe izd-vo. Vol.1. 1962. 532 p. Vol.2. 1963. 462 p. (MIRA 16:5)
(Construction industry)

ROVNOVA, Z.I.; KOSYAKOV, P.N.; KLIMENKO, S.M.; GETLING.Z.M.

Effect of antibodies and inhibitors on the virus-cell system.
Vop. virus 8 no.2:150-155 Mr-Ap'63 (MIRA 16:12)

1. Institut virusologii imeni D.I.Ivanovskogo AMN SSSR, Moskva.

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000514930008-1"

GETMAN, A., general-polkovnik tankovykh voysk

Train platoon leaders carefully. Komm. Vooruzh. Sil 4 no.2:24-29 Ja'64. (MIRA 17:9)

1. Komanduyushchiy voyskami Prikarpatskogo voyennogo okruga.

GETMAN, A., general armii

In the interests of high combat readiness. [illegible] 4 no.12:38-41 De '64. [illegible]

GETMAN, A., [illegible]

For high discipline and [illegible] [illegible], no. 1 [illegible] Mr '[illegible].
(MIRA 1[illegible])

1. Predsedatel' Tsentral'nogo [illegible] [illegible] [illegible] obshchestva sotsyalistiya armii, [illegible] [illegible] SSSR.

SHAPRANOV, I.A.; GET'MAN, A.A.

Gating systems for magnesium iron founding. Lit. proizv. no. 2:13-18 F '61. (MIRA 14:4)
(Iron founding) (Foundries--Equipment and supplies)

GULYAYEV, A.B., doktor tekhn. nauk, prof., otv. red.; GEL'MAN, A.A., kand. tekhn. nauk, red.; ORFIK, S.L., red. izd-va

[Mechanical properties of cast metals] Mekhanicheskie svoitva litogo metalla; trudy. Moskva, Izd-vo AN SSSR, 1963. 307 p. (MIRA 16:12)

1. Soveshchaniye po teorii liteynykh protsessov. 4th.
(Metal castings—Testing)

GULYEYEV, B.B.; GET'MAN, A.A.

Characteristics of the coefficient of flow in gating systems.
Lit.proizv. no.7:3-4 Jl '64. (MIRA 18:4)

L 16797-63 EWP(k)/EWP(q)/EWT(m)/BDS AFFTC/ASD Pf-4 JD

112

ACCESSION NR: AP3005799 S/0128/63/000/008/0043/0047 67

AUTHOR: Levi, L. I.; Get'man, A. A.; Vlasova, T. M.

14

TITLE: Gases in cast metal [Reports presented at an all-Union conference on problems of interaction of gases with metals and alloys, held in February 1963]

SOURCE: Liteynoye proizvodstvo, no. 8, 1963, 43-47

TOPIC TAGS: steel melting, vacuum steel melting, electroslag melting, electromagnetic stirring, vacuum degassing, manganese steel, chromium alloy, aluminum alloy, steel casting, titanium casting, hydrogen behavior, nitrogen behavior, nitrogen effect, porosity, inert gas effect, salt effect, filtration

ABSTRACT: An all-Union conference on problems of interaction of gases with metals and alloys was held in February 1963. About 60 reports were presented and discussed at the conference, attended by 300 representatives of 150 scientific organizations of the USSR. N. M. Chuyko, Yu. P. Galitskiy, V. B. Rutkovskiy, A. P. Perevyazko, E. S. Senchilov, and E. D. Samoylenko reported on the behavior of

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hydrogen and nitrogen in acid and basic electric furnaces, and K. N. Ivanov, on melting steel with low hydrogen content in arc furnaces. V. P. Karasev and P. Ya. Ageyev discussed behavior of gases during the treatment of metal with solid sorbents such as slags and emphasized that they markedly reduce the hydrogen content. M. F. Galkin, Yu. A. Yevstratov, M. M. Zakharov, and A. V. Kuzin spoke of the elimination of underskin porosity in austenitic steel castings by addition of magnesite shortly before tapping, tapping at 1700—1730C, and addition of titanium in the ladle. Yu. A. Klyachko and I. V. Tulepova discussed the effect of vacuum-arc melting and electroslag melting on the gas content in steel and pointed out that both methods reduce the hydrogen and oxygen content, promote the dispersion of nonmetallic inclusions, and change their chemical composition. N. M. Chuyko, A. T. Perevyazko, V. B. Rutkovskiy, R. Ye. Danichek, and Yu. V. Lagunov dealt in their report with vacuum degassing of steel. The best results were obtained in vacuum stream degassing and by blowing a stream of an inert gas through metal in a ladle in vacuum. The report of A. I. Pakhomov and A. N. Sokolov discussed

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the effect of electromagnetic stirring on gas content. Yu. A. Nekhendzi, N. G. Girshovich, K. P. Abrudev, and L. V. Gruzny'kh analyzed the effect of gases on the shrinkage of alloys. V. I. Vlasov and Ye. F. Komolova discussed the effect of nitrogen on properties of manganese steel and pointed out that nitrogen in high-manganese steel increases wear resistance and strength. The report of V. G. Korotkov analyzed the combined effect of salts, inert gases, vacuum, and filtration on aluminum alloys. G. F. Balandin, B. Ch. Gini, Yu. P. Matveyko, Ye. A. Sokolov, Yu. A. Stepanov, and Yu. P. Yakovlev discussed gas-induced defects in large thin-walled castings. E. Ya. Kukkonen, G. A. Kaplunovskiy, A. A. Demidova, O. N. Magnitskiy, and B. B. Gulyayev reported on porosity formation in titanium castings. Fused magnesite molds vacuum fired at high temperature, use of pressure in casting, and centrifugal casting all reduce the gas porosity in titanium castings.

ASSOCIATION: none

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SHAPRANOV, I.A.; GET'MAN, A.A.

Cupola with two-stage air preheating and basic lining. Lit. proizv. 5:20-21 My '64. (MIRA 18:3)

GULYAYEV, B.B., doktor tekhn. nauk, prof., otv. red.; GUT'MAN, A.A., kand. tekhn. nauk, red.; [illegible], kand. tekhn. nauk, red.; [illegible], kand. tekhn. nauk, red.; KOZIN, A.V., inzh., red.

[Gases in cast metal] Gazy v litom metalle. Moskva, Izd-vo "Nauka," 1964. 262 p. (MIRA 17:6)

1. Moscow. Institut mashinovedeniya.

KOCHAN, A.D., inzh.; GULYAYEV, B.B., doktor tekhn. nauk; GERMAN [illegible] kand. tekhn. nauk

Semicontinuous method of cast iron pipe casting. Lit. proizv. no.11:8-10 N '65. (MIRA 18:12)

L 33115-66

ACC NR: AP6024083 SOURCE CODE: UR/0144/66/000/002/0235/0236

AUTHOR: Zav'yalov, A. S.; Gat'man, A. A.; Molchanov, V. D.; Krasyuk, N. P.; Agranovskiy, K. Yu.; Berger, A. Ya.; Greyer, L. K.; Yesakov, V. P.; Miller, Ye. V.; Pyatman, K. I.; Abryutin, V. N.; Gubanov, V. V.; Oranskiy, M. I.; Yevseyev, N. Ye.; Morkin, G. B.; Sinol'nikov, Ye. M.; Avilov-Karnaukhov, B. N.; Bogush, A. G.; Bolyayev, I. P.; Pekker, I. I.; Chernyavskiy, F. I.

ORG: none

TITLE: O. B. Bron (on his 70th birthday)

SOURCE: IVUZ. Elektromekhanika, no. 2, 1966, 235-236

TOPIC TAGS: electric engineering personnel, circuit breaker

ABSTRACT: Osip Borisovich Bron was born in 1896 in Klintsi. In 1920, he graduated from the physics-math faculty of Khar'kov Technological Institute. He became a professor in 1930. He defended his doctor's thesis in 1940. During the second world war, he was in the navy. After demobilization in 1950, Engineer Colonel Bron went to work teaching at the Leningrad Industrial Correspondence School. He became the head of the Chair of Theoretical Bases of Electrical Technology in 1958. He is closely associated with scientific and development work, and has cooperated closely in this area with the Leningrad "Elektrosila" plant since 1946. His work has been in the areas of spark-damping and high-power circuit breakers. He has published over 140 scientific works and 19 inventions. [JPRS]

SUB CODE: 05, 09 / SUBM DATE: none

Card 1/1

L 45111-66 TCH

ACC NR: AP6021926 (A) SOURCE CODE: UR/0017/66/000/003/0004/0005

AUTHOR: Getman, A. L. (Hero of the Soviet Union, General of the Army, Chairman Tsk DOSAAF SSSR)

ORG: Tsk DOSAAF SSSR

TITLE: More attention to future soldiers!

SOURCE: Voyennyye znaniya, no. 3, 1966, 4-5

TOPIC TAGS: military training, civil defense/DOSAAF

ABSTRACT: The author stresses the need for more and better military training among DOSAAF [All-Union Volunteer Society for Cooperation with the Army, Air Force, and Navy] members, even though close to one million DOSAAF propagandists and social workers are already active in preparatory military training in the organization. Hundreds of thousands of youths of draft and predraft age were given basic military training in the DOSAAF in 1965. A new sports and technical-training system,

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L 45111-66
ACC NR: AP6021926

which was recommended by the Fifth Plenary Session of the Central Committee of the DOSAAF, was put into operation in January 1966. Graduates of the system receive the title "Ready for the Defense of the Motherland". DOSAAF volunteer training opened in 1965, points have been established at various enterprises. Groups are organized by shop and are now to be established at all enterprises, building projects, kolkhozes and sovkhozes, and schools where there are at least 15 youths of predraft age. Monthly mass-defense training days, military-patriotic rallies and meetings of young people with heroes and veterans, military games and pilgrimages to battlefields are organized regularly. The author commends the work done by DOSAAF sports and technology clubs where high-school seniors are given free courses in military-technical skills. He also mentions an additional program of preparatory military training, required of all technical study groups and courses, and sports and technology clubs, which was established in October 1965. Abolishment of military training in schools required the reorganization of DOSAAF school organizations. DOSAAF-sponsored military training in schools was stepped up as a result at the end of 1964. The author complains that regardless of the progress made, the work

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L 45111-66
ACC NR: AP6021926

of the DOSAAF still needs great improvement, and suffers from shortages of equipment, poor organization, and indifference on the part of the leaders of the organization. [GC]

SUB CODE: 05, 06/ SUBM DATE: none/

Card 3/3

GET'MAN, A.P.

[Eficient workers call the others forward] Peredoviki zovut vpered. Kishinev, Partiinoe izd-vo TsK KP Moldavii, 1962. 41 p. (MIRA 15:7)

1. Brigadir ptitsevodcheskogo sovkhoza "Yuzhnyy" Krymskoy oblasti (for Get'man).

(Poultry)

USSR/Geography - Soil Classification Jan/Feb 53

"Problems of Developing a Land-Improvement (Ameliorative) Classification of Soils"

"Iz V-S Geograf Obshch" Vol 85, No 1, pp 120, 121

A report, on subject classification of soils, presented by B.G. Getman, Cand Agric Sci, on 27 Oct 52 at a meeting of the Soil Commission of All-Union Geog Society. The solution of related problems require unification of works of soil science, cultural techniques, hydraulic land improvement, and agronomy.

246T76

[illegible], F. [illegible]; Kuvanova, I. S.

Lazarev, [illegible]etrovich, 1873-1942

[illegible] M. Lebedev and V. [illegible] Tukovskiy on [illegible] Lazarev (on unpublished letters).
Vest. Akad SSSR 22 no. [illegible], 1952.

Monthly list of Russian accessions, Library of Congress, [illegible]

GETMAN, F. F.

USSR/Medicine - Electrocardiography Sep/Oct 53

"An Artificial Electrocardiogram - A new Method of Determining the Accuracy of an Electrocardiogram," F. F. Getman, Electrocardiograph Lab, Acad Med Sci USSR

Terap Arkh, Vol 25, No 5, pp 54-56

The author describes a new apparatus which can be used separately or built into an electrocardiograph. It operates by means of a light modulator of a disk or band type, and a photocell. The fluctuations are

276T14

recorded by the electrocardiograph. The apparatus has been tested and approved for use by the Electrocardiography Lab, Acad Med Sci USSR. A schematic drawing accompanies the text.

GETMAN, F.F.

Photoindicator. Fiziol. zh. SSSR 39 no. 1:104-105 Jan-Feb 1953. (CIML 24:2)

1. Moscow.

GETMAN, F.F.

USSR/Optics - Physiological Optics. K-9

Abs Jour : Referat Zhur - Fizika, No 3, 195., 8068

Author : Getman, F.F.
Inst : Central Institute of Traumatology and Orthopedics of the Ministry of Health, USSR.
Title : Effect of the Form of a Light Impulse on the Perception of Light.

Orig Pub : Probl. fiziol. optiki, 1955, 11, 228

Abstract : After having tested the effect of light of variable intensity with various time dependence of intensity on vision, the author has found that pulses of sinusoidal form were evaluated by observers as something pleasant, while rectangular pulses were unpleasant.
No indications of the brightnesses and frequencies employed are given.

Card 1/1 - 127 -

GETMAN, F.F. (Moskva)

Method for registering the "bipotentials of the diaphragm" in man. Vrach.delo no.2:169-172 F '56. (MLRA 9:7)
(DIAPHRAGM) (ELECTROPHYSIOLOGY)

GET'MAN, I.A.; MOMASTYRSKAYA, N.M.; NATANSON, T.L.

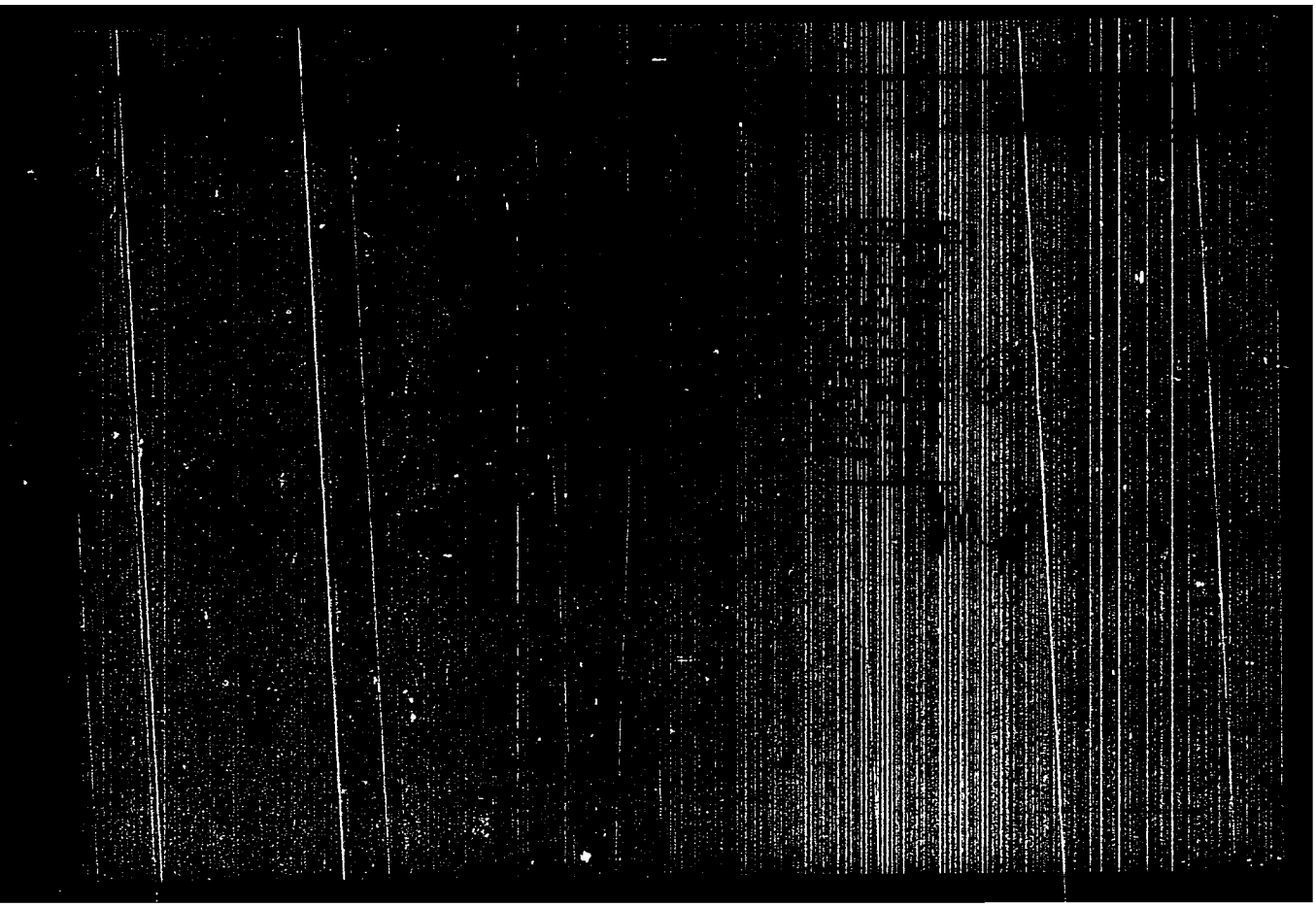
A case of the development of chlorine-resistant forms of bacteria in water supply systems. Vod.i san.tekh. no.9:6-8 D '55. (MLRA 9:3)

(Water--Bacteriology)

GET'MAN, I.A.

Difficulties caused by the periodic deterioration of the quality of water in the Northern Donets-Donets Basin Canal: data of two years' experience in its use. Trudy Gidrobiol. ob-va 14:115-123 '63. (MIRA 17:6)

1. TSentral'naya laboratoriya Donbassvodtresta, Donetsk.



133-8-8/28

AUTHORS: Margulis, O.M., Romanchenko, K.G., and Getman, I.A.

TITLE: Sheaths for immersion thermocouples. (Nakonechniki dlya termopar pogruzheniya).

PERIODICAL: "Stal'" (Steel), No.8, 1957, pp.714-715 (USSR).

ABSTRACT: Methods of producing refractory thermocouple sheaths for immersion thermocouples resistant to thermal shock and able to withstand not only a large number of short immersions but also prolonged immersion, were investigated. T.K.Kazanskaya (laboratory assistant) participated in the investigation. It was established that the best method of manufacturing is by freezing a layer of a mixture of refractory powder with paraffin and oleic acid on to an immersed rod (at 50-70 C). It is stated that the appropriate compositions for manufacturing various refractory sheaths were established but no details given. As all refractory sheaths produced cracked on immersion, two types of protective coatings based on metallurgical magnesite and zirconia stabilised with lime were developed. The size distribution required for the above two materials are given. As a binder, an alcoholic sulphite lyle was used. Tests carried out in a high frequency furnace at 1600-1700C indicated that sheets from technical corundum coated with a

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133-8-8/28

Sheaths for immersion thermocouples. (Cont.)

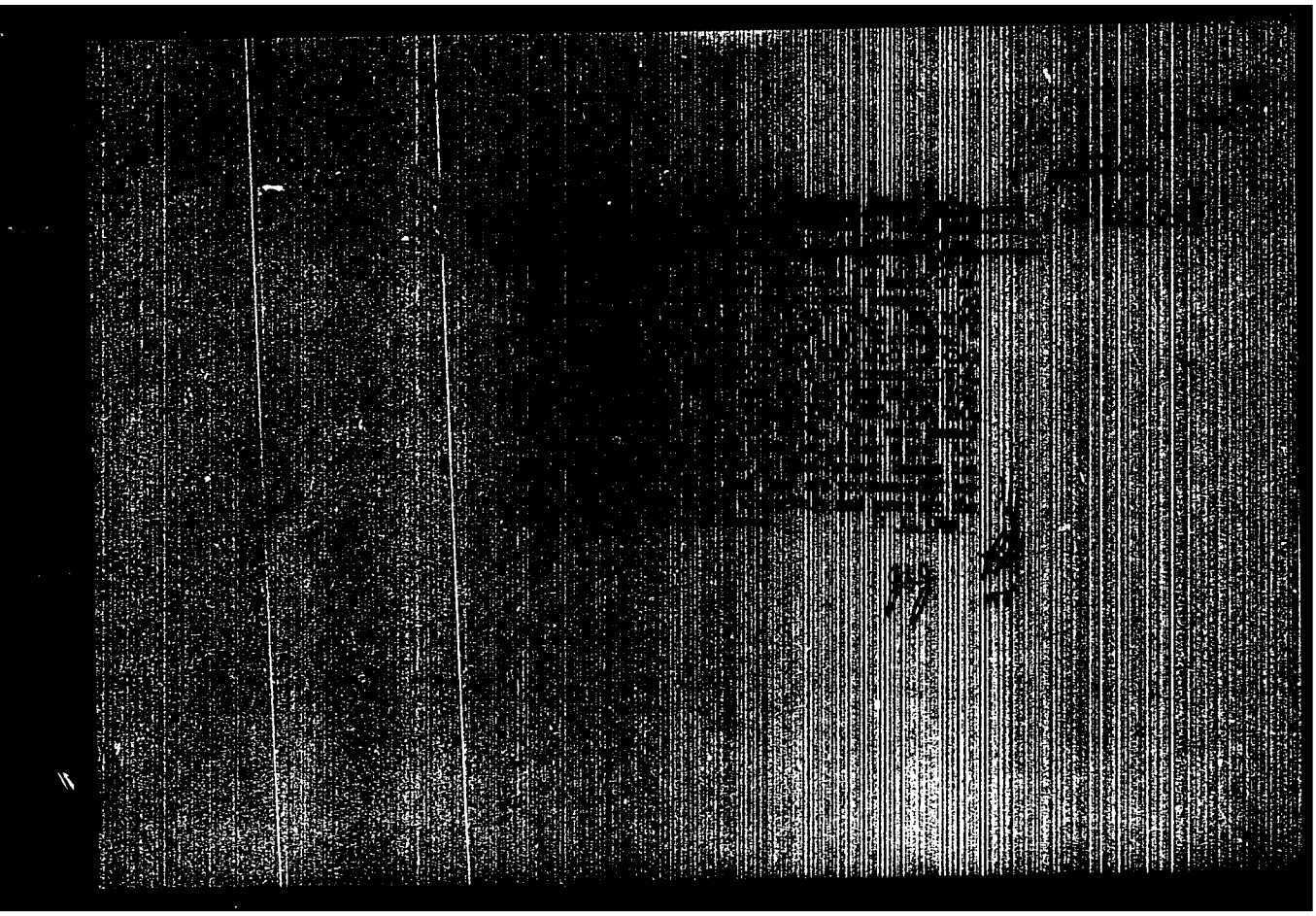
magnesite or zirconia coating can withstand 6-13 immersions. In Fig.2 a view of sheaths after 4 hours' immersion is given. It is concluded that using the above sheaths the control of metal temperature either by repeated immersions or by a continuous (4 hours) immersion is possible, but a proper design of the thermocouple itself should be developed.

There are 2 figures and 4 references, including 1 Slavic.

ASSOCIATION: All-Union Scientific Research Institute of Refractories. (Vsesoyuznyy N.-I.Institut Ogneuporov).

AVAILABLE: Library of Congress

Card 2/2



25(1) PHASE I BOOK EXPLOITATION SOV/1766

Ogneupory dlya chernoy metallurgii; sbornik statey (Refractories in Ferrous Metallurgy; Collection of Articles) Moscow, Metallurgizdat, 1958. Errata slip inserted. 4,000 copies printed.

Ed.: B. I. Gavrish, Engineer; Ed. of Publishing House: I. P. Kirsanov; Tech. Ed.: A. I. Shatsov.

PURPOSE: This book is intended for engineers and technicians working in ferrous metallurgy.

COVERAGE: The book consists of 20 articles on the development and use of refractories in the Soviet metallurgical industry. B. I. Gavrish, in the first paper, presents the prospects for development and research projects for the period 1959-1965. He emphasizes development of refractory plants in the eastern part of the USSR. In general the articles deal with recent developments in basic and acidic refractories for blast and open hearth furnaces, and for the lining of ladles and special equipment used in continuous casting and in vacuum treatment of steel. A. S. Berezhnoy discusses the technology of manufacturing magnesite and forsterite refractories which frequently replace Dinas brick and fire clay. Several authors state that good results were obtained with

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particles-spinell brick and with bricks made of magnesia and chromite compounds. The application of new refractories, insulating materials, high-temperature mortars, binding media, and cements, combined with advanced techniques in lining furnaces, are said to have more than doubled the time intervals between relining and overhauling furnaces. O. M. Margulis and A. G. Shmelev discuss the use of "tagged atoms" to determine the degree of contamination of steel by refractory-lining particles. E. S. Lozepak describes the production of refractories by the sandbry pressing method employed at the Nizhne-Tagil' plant, and I. S. Bogomazki and V. D. Zaigler cover the use of lightweight Dinas bricks in industrial furnaces. The last paper written by A. R. Mahmurchev compares and evaluates the physical properties and service life of fire-clay bricks, forsterite bricks, Dinas bricks and bricks with high alumina content. Graphs, diagrams, and photographs accompany the papers. For references, see Table of Contents.

TABLE OF CONTENTS:

Refractories in Ferrous Metallurgy (Cont.) SOV/1766

Shilmanovich, E.A., and I.A. Gotman. Technology of Manufacturing High-density and Massive-quality Mullite-Alumina-Silicate Refractories for Blast Furnaces Linings. [There are 13 references, 6 of which are Soviet, and 7 English] 142

Shmelev, G.V., and K.F. Vasil'yeva. Service Life of Ladle Liners for Pouring Steel [13 Soviet references] 162

Gotman, I.S., L.V. Vinogradova, K.A. Krasotin, and D.S. Min'kov. Heat-resistant High Alumina Ladle-lining Brick and Stopper Nozzles of Mullite-Corundum Composition [5 Soviet references] 173

Margulis, O.M., and A.G. Shmelev. The Use of Tagged Atoms to Determine the Effect of Refractory Contamination of Steel With Non-metallic Inclusions [There are 12 references, 9 of which are Soviet, and 3 English] 178

Lozepak, E.S. Manufacture of Steel-pouring Devices by the Sandbry Pressing Method in the Refractory Shop of the Nizhne-Tagil' Metallurgical Combine and the Results of Practical Application in Metallurgy 186

Card 4/5

AUTHORS: Zhikharevich, S.A., German, I.A., Korytova, L.A., [illegible] C/ Savkevich, I.A., Milishenko, K.S., Konenkiy [illegible]

TITLE: The Production Technology of Highly Aluminous Dense Products Using the Dispersed Concentrate of the Aktash Occurrence (Tekhnologiya proizvodstva vysokoglinozemistykh plotnykh izdeliy s primeneniyem aktashskogo diasporovogo kontsentrata)

PERIODICAL: Ogneupory, 1958 Nr 4, pp. 175-179 (USSR)

ABSTRACT: Experiments showed that this dispersed concentrate is not easily caked together at high temperatures even if previously finely crushed. Further, the result of petrographic investigations carried out by N.V. Gulko is given. An illustration shows the properties of samples from 100% dispersed concentrate of the Aktashsk occurrence at a pressure of 200 kg/cm² and a burning temperature of up to 1700°. If the dispersed concentrate is burned twice its quality is improved but the working process is rendered more complicated. Experiments were therefore carried out in which previously burned and finely ground dispersed concentrate is used as a dust-like component of the fire-clay mass (dispersed fire clay).

Card 1/3

The Production Technology of Highly Aluminous Dense Products When Using the Dispersed Concentrate of the Aktash Occurrence

SOV/[illegible]

The properties of dispersed fire clay and of such made of technical alumina and clay are given in table 1. The characteristic of the masses and the properties of the crude samples may be seen from table 2, and those of samples burnt at 1500° from table 3. Furthermore, an industrial quantity of blast furnace bricks of the type D-2 was made. The granulation of the fire clay is shown in table 4 and the characteristics of the mass and the raw products are shown in table 5. Conclusions: 1.) By a joint application of the dispersed concentrate and technical alumina it is possible to obtain highly aluminous dense products. 2.) The dispersed aluminous products with a porosity of less than 1% have a good structure. They are of low permeability for smelts and gases and have a volume stability at 1500-1550°. It is recommended to intensify the search for dispersed ores on the condition that costs are considerably reduced. There are 1 figure, 5 tables, and 3 references, 1 of which are Soviet.

Card 2/3

The Production Technology of Highly Aluminous Dense Products When Using the Dispersed Concentrate of the Aktash Occurrence

131-58-4-10/17

ASSOCIATION: Khar'kovskiy institut ogneuporov (Khar'kov Institute for Refractories)
Voronezhskiy Sovnarkhoz (Voronezh Economic Council)
Semilukskiy ogneupornyy zavod (Semiluki Plant for Refractories)

Card 3/3

1

AUTHOR: Zhikharevich, S. A., Getman, I. A., SOV/171-58-9-1/[illegible]
Konyreva, L. A.

TITLE: Technology of Dense, Volume-Constant, High-Alumina Products for the Brick Lining of Blast Furnaces (Tekhnologiya plotnykh ob"yemopostoyannykh vysokoglinozemistykh izdeliy dlya kladki domennykh pechey)

PERIODICAL: Ogneupory, 1958, Nr 9, pp. 389 - 405 (USSR)

ABSTRACT: The fireproof bricks in the well of blast furnaces are exposed to a longlasting influence of liquid crude iron kept at a temperature of 1500° as well as to a static pressure of 4-5 kg/cm^2. The conditions of the heat conduction, especially in the central part of the well, are unfavorable as well. Previously, the bricks were manufactured from raw kaolin, but they developed a considerable shrinkage. For the improvement of the stone quality a significant increase of the Al_2O_3 content (within the limits 65-75%) is necessary. High-alumina products comply with these requirements. Table 1 shows the composition and properties of the high-alumina fire-clay. From Table 1 the porosity,

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density and shrinkage of the products under a pressing force of 1000 kg/cm² and a burning temperature of 1550° at a duration of 10 hours is seen. In table 3 the composition of the batch and the porosity of the raw material are presented. The influence of the fine-grained parts of the batch on the quality of samples from highly aluminous batches are given in table 4 and the shrinkage in table 5. Figures 3 and 4 show the properties of samples produced from this batch. Table 6 contains the chemical composition and the heat resistance of the samples and table 7 the fire properties. In table 8 the properties of products which were manufactured in the testing plant UNIIO, are tabulated. The experience gained in laboratory- and experimental work were introduced in the **Semiluki plant** of refractories. In this work participated from the Institute Ye.A.Gin'yar, A.P.Kochetova; from the plant T.A.Fitkalenko, I.A.Savkevich, R.S.Mil'shenko, Ye.G.Volodarskaya, Ye.V.Rachkova, S.I.Fedosov, N.V.Konetskiy and others (Ref 1). In table 9 the granulation of the batches is given and in table 10 the pressing process. Table 11 shows the properties of the bricks. Conclusions: It is possible

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Technology of Dense, Volume-Constant, High-Alumina Products for the Brick Lining of Blast Furnaces SOV/131-58-9-1/11

to produce fireproof, highly aluminous bricks with low porosity and high stability as well as with a volume constancy at 1550-1600°. The technological parameters of this ware are presented. Together with an increased solidity of the stones also the construction of the well must be improved, in order to avoid a vaulting of the stones. It is recommended to enlarge the dimensions of the stones in order to reduce the number of joint. There are 4 figures, 11 tables, and 4 references, 4 of which are Soviet.

ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (Ukrainian Scientific Research Institute of Refractories)

Card 3/4

Technology of Dense, Volume-Constant, High-Alumina Products for the Brick Lining of Blast Furnaces SOV/131-58-9-1/11

Card 4/4

GET'MAN, I.A.; MATANSON, T.L.

Some observations on supplements to the current standard 5215-50.
Lab.delo 5 no.2:45 Mr-Ap '59. (MIRA 12:5)
(WATER--PURIFICATION)

29425
S/081/61/000/017/077/166
B101/B102

15 2400

AUTHORS: Berezhnoy, A. S., Repenko, K. N., Getman, I. A., Gul'ko, N. V.

TITLE: Experimental studies of molybdenum disilicide as a refractory material

PERIODICAL: Referativnyy zhurnal Khimiya, no. 17, 1961, 544, abstract 17K200 (Sb. nauchn. tr. Ukr. n.-i. in-t ogneuporov, no. 4, 1960, 296-317)

TEXT: The conditions under which $MoSi_2$ is synthesized from mixture of Mo and Si powders in a stoichiometric ratio without pressure at 1200-1600°C in an H_2 atmosphere have been studied. It has been found that laboratory samples of $MoSi_2$ can be obtained (without preliminary synthesis) by hot pressing at 40 kg/cm^2 in graphite molds. High-density samples of $MoSi_2$ with a porosity of 7% were obtained by hot pressing at 200 kg/cm^2 and 1700°C. For $MoSi_2$ samples fired in a vacuum furnace, the coefficient of thermal expansion in vacuo between 20 and 1580°C was found to be 12.8·10^{-6}. High-density samples showed maximum stability against atmospheric O_2 on

Card 1/2

22465
S/081/61/000/017/077/166
B101/B102

Experimental studies of molybdenum ...

heating. At 20°C, σ_{compr} = 4500-10,000 kg/cm², depending on the grain composition of the charge and on the firing temperature; at 1650°C, σ_{compr} = 350-525 kg/cm². Under loads of 2 and 10 kg/cm² no deformation was observed at 1650°C. $MoSi_2$ can be used as a refractory material.

[Abstracter's note: Complete translation.]

Card 1/2

S/131/63/000/001/004/004
B117/B101

AUTHORS: Repenko, K. N., Gul'ko, N. V., Getman, I. A.

TITLE: Reaction of metallic titanium with crucibles made of zirconium dioxide

PERIODICAL: Ogneupory, no. 1, 1963, 42 - 45

TEXT: The microstructure and phase composition of crucibles made of ZrO_2 with addition of CaO or Ti, used for producing pure titanium, were investigated before and after use. Experimental crucibles were made by casting aqueous slips of ZrO_2 (grain size $< 3\mu$). The ZrO_2 stabilized with CaO at 1750°C gave, after firing at 1750°C, a material consisting entirely of cubic ZrO_2 with a porosity of 0.1%. The ZrO_2 with an addition of 6.4% titanium by weight, initially annealed at 1450°C, was fired at 1850°C. In material containing 95% of the monoclinic ZrO_2 modification the porosity was 1.5%. Titanium was melted in these crucibles at 10^{-4} mm Hg, holding the temperature at 1670 - 1680°C for 30 or 10 min. In crucibles with Ti addition no contact between melt and crucible wall existed after 30 min.

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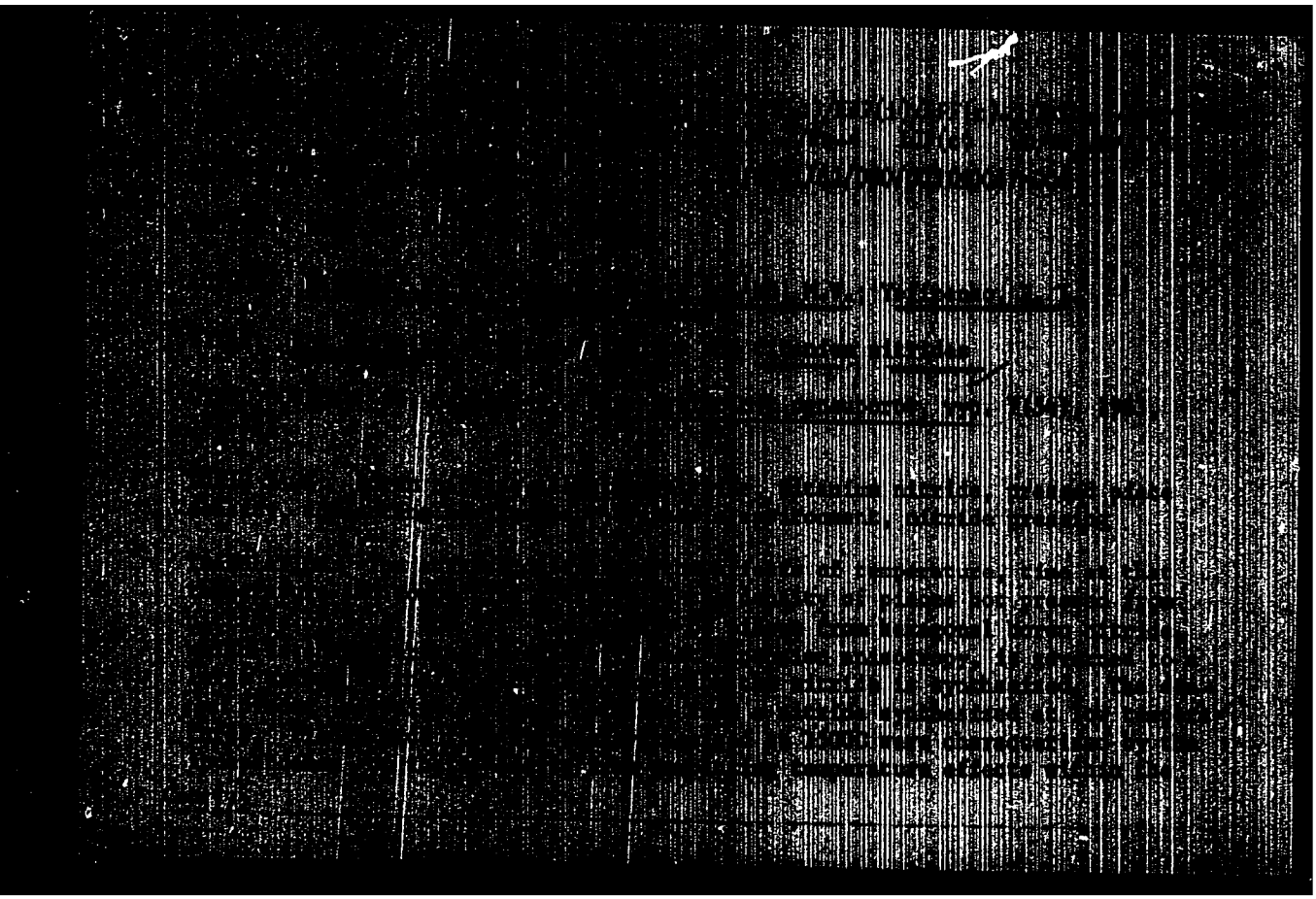
The content of metallic titanium in the crucible material had increased. Titanium was evenly distributed among the ZrO_2 grains throughout the thickness of the wall. The microhardness of these grains was lower as compared with pure ZrO_2, but the microhardness of the metal had increased as compared with pure titanium. In crucibles with CaO addition, close contact between refractory material and metal melt existed after 30 min. The melt had only slightly penetrated into the refractory material, but caused its erosion. A layer of about 90μ thickness was formed, consisting of metal with sparsely distributed small ZrO_2 particles, some of which penetrated to a depth of 350μ into the melt. After 10 min melting time, similar but less intensive reactions took place in both cases. Conclusion: ZrO_2 crucibles with Ti addition are more durable and offer greater resistance to heat than those with CaO addition. This can partly be ascribed to the fact that titanium forms a solid cover around the ZrO_2 particles and protects ZrO_2 from destruction. Further laboratory and factory tests of ZrO_2 crucibles with titanium addition are recommended as well as investigation of the metal so produced. There are 2 figures and 1 table.

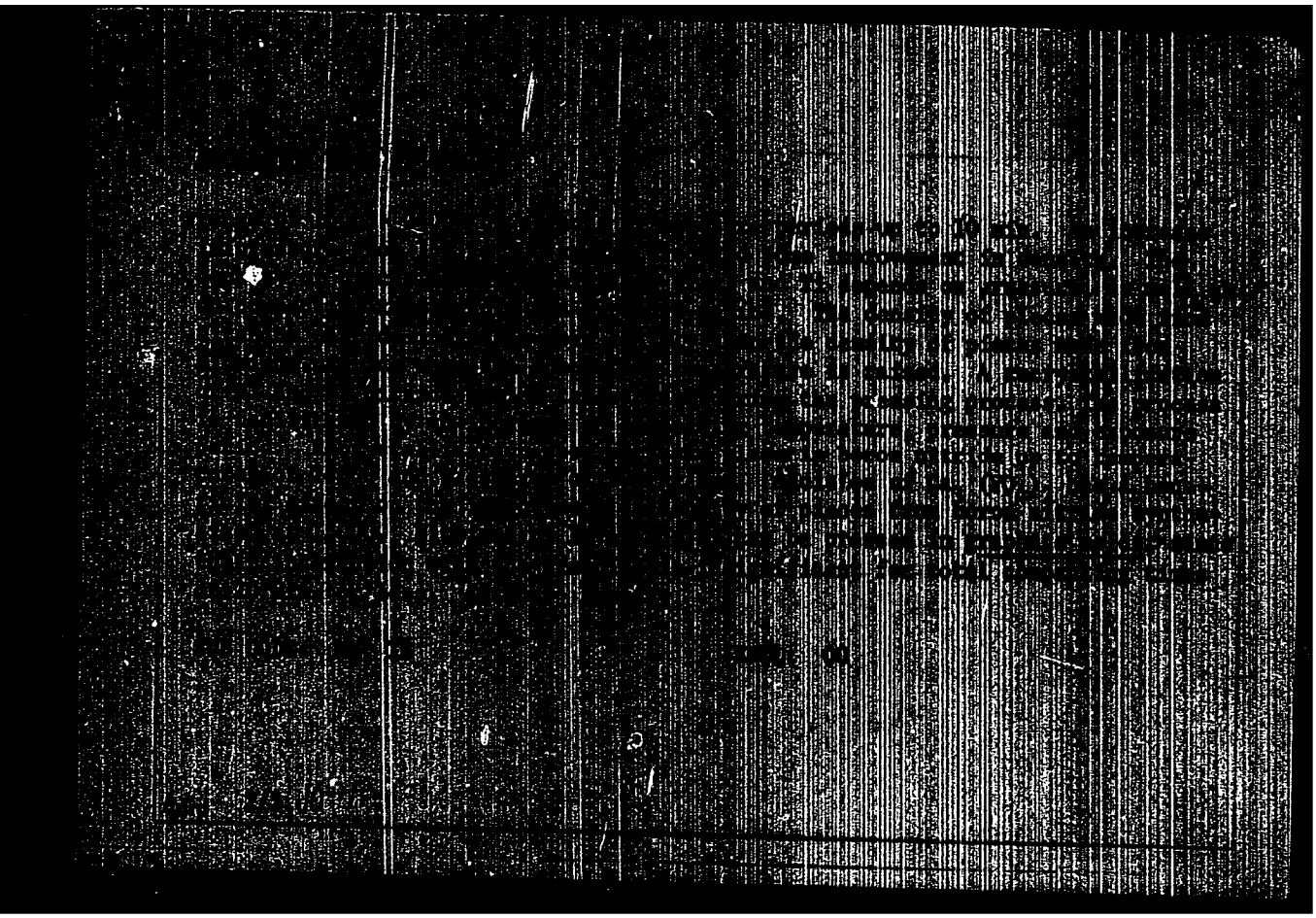
Reaction of metallic...

S/131/63/000/001/004/004
B117/B101

ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (Ukrainian Scientific Research Institute of Refractory Materials)

Card 3/3





L 29336-66 EWT(m)/T/EWP(t) IJP(c) WW/JD/JG

ACC NR: AR6004371 SOURCE CODE: UR/0081/65/000/015/B068/B068

AUTHOR: Repenko, K. N.; Getman, I. A.; Gul'ko, N. V.

TITLE: Stabilization and destabilization of zirconium dioxide cubic form

SOURCE: Ref. zh. Khimiya, Abs. 15B488

REF SOURCE: Sb. nauchn. tr. Ukr. n.-i. in-t ogneuporov, vyp. 7(54), 1963, 204-212

TOPIC TAGS: zirconium, zirconium oxide, zirconium compound, cubic crystal, ~~structure stability, CaO, MgO~~, heat change of state, vacuum chamber, CHEMICAL STABILIZATION, SOLID SOLUTION

ABSTRACT: The stabilization of ZrO_2 in a commercial zirconium dioxide (93.96% ZrO_2) was studied by methods of chemical, x-ray, and petrographical analyses, with the addition of CaO, MgO, $CaZrO_3$, Ti or Zr. The stability of ZrO_2-CaO- and ZrO_2-MgO solid solutions with prolonged heating on air and in a vacuum at 1200° and short heating in a vacuum at 2100° was also investigated. For a complete transition of monoclinic Zr_2 into cubic Zr_2 an addition of 5% MgO or 2.5% MgO + 2.5% CaO is sufficient. However, an addition of 5% of CaO is inadequate.

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L 29336-66

ACC NR: AR6004371

The constants of reaction speed and activation energy of the reaction of binding MgO and CaO with ZrO_2 was calculated. Based on experiments of destabilization of solid solutions the most expedient way was shown of using Ca compounds for stabilizing ZrO_2, especially for processes in a vacuum. D. A.

SUB CODE: 07/ SUBM DATE: none

Card 2/2 CC

GET'MAN, I.I.

Complications of cholecystitis. Vrach.delo no.10:1089 O '58 (MIRA 11:11)

1. Zborovskaya rayonnaya bol'nitsa Zakarpatskoy oblasti.
(GALL BLADDER--DISEASES)

GET'MAN, I.I.

Sublingual dermoid cyst. Vrach.delo no.4:423 Ap '60.
(MIRA 13:6)

1. Rayonnaya bol'nitsa, g. Zborov, Ternopol'skoy oblasti.
(TONGUE--DISEASES) (CYSTS)

GET'MAN, I.Ya., bul'dozerist

We use the earth-working machine efficiently. Transp. stroi. 13 no.2:36 F '63. (MIRA 16:3)

1. Stroitel'no-montazhnyy poyezd No.182 upravleniya Magnitogorskstroyput'.
(Virgin Territory--Earthwork)

L 07099-67 EWT(1)/EWT(m)/EWP(t)/ETI IJP(c) JD/JG

ACC NR: AP6029110 SOURCE CODE: UR/0048/66/030/006/0968/0971

AUTHOR: Klyushin, V.V.; Sidorov,S.K.; Kelarev,V.V.; Getman,I.Ya.; Arkhipov,V.Ye.

ORG: Institute of Metal Physics, Academy of Sciences of the SSSR (Institut fiziki metallov Akademii nauk SSSR)

TITLE: Antiferro-ferromagnetic phase transition in the $Fe(Pt_xPd_{1-x})_3$ system [Report, All-Union Conference on the Physics of Ferro- and Antiferromagnetism held 2-7 July 1965 in Sverdlovsk]

SOURCE: AN SSSR, Izvestiya, Seriya fizicheskaya, v. 30, no. 6, 1966, 968-971

TOPIC TAGS: phase transition, ordered alloy, electric resistance, spontaneous magnetization, coercive force, iron alloy, platinum alloy, palladium alloy

ABSTRACT: The $Fe(Pt_xPd_{1-x})_3$ system was selected for investigation in view of its suitability for study of the behavior of the antiferromagnetic-ferromagnetic phase transition. The end compositions - $FePt_3$ and $FePd_3$ are binary alloys with known properties, which become ordered ($AuCu_3$ type ordering) at 710 and 820°C, respectively. The mixed ternary alloys (with 25 atomic percent iron) are also characterized by $AuCu_3$ type ordering. The investigated compositions are tabulated (16 different specimens); the specimen preparation procedure and the resistivity measurement method were the same as described by V.V.Klyushin, I.Ya.Getman, V.N.Zubankov, and V.V.Kelarev (Fiz. metallov i metallovedeniye, 21, 153, 1966). The temperatures of the phase

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ACC NR: AP6029110

transitions were determined from the anomalies in the temperature dependences of the electric resistivity. Also measured were the values of the spontaneous magnetization and the coercive force. These were determined by means of a vibrating magnetometer to within 3% for rod specimens. The composition dependences of the Neel and Curie points, the magnetic moment and the coercive force are presented in figures. A radical change or break in the curves is evinced in the region of 37 to 50 atomic percent Pd. The results and specifically the probable character of the antiferro-ferromagnetic phase transition are discussed at some length. It is concluded that the transition is realized by the process described by S.K.Sidorov and A.V.Doroshenko (Fiz. metallov i metallovedeniye, 18, 811, 1964), involving gradual rotation of the magnetic moments in the entire volume of the specimen or appearance of ferromagnetic phase nuclei in the antiferromagnetic phase and the growth of these nuclei. Which of these mechanisms predominates will be determined in further studies. Orig. art. has: 1 table and 8 figures.

SUB CODE: 20,07 SUBM DATE: 00 ORIG. REF: 005 OTH REF: 007

Card 2/2

GUSEL'SHCHIKOV, M.K., professor; GETMAN, M.G., redaktor; NAVROTSKIY, D.I., redaktor; FIRSOV, M.Ye., redaktor.

[Electric and gas welding in shipbuilding and ship repair] Elektricheskaia i gazovaia svarka v sudostroenii i sudoremonte. 2 izd., dop. i perer. Leningrad, Izd-vo Ministerstva morskogo i rechnogo flota SSSR, 1953. 397 p. (MLRA 7:7)

(Electric welding) (Oxyacetylene welding and cutting) (Shipbuilding)

GETMAN, M. G.

GETMAN, M.G.; VILL', B.I.

Shortcomings in teaching the course "Automatic welding" Avtom.svar. 7 no.1:65-67 Ja-F '54. (MLRA 7:7)

1. Glavnyy konstruktor zavoda "Elektrik" (for Getman) 2. Nachal'nik laboratorii Vsesoyuznogo nauchno-issledovatel'skogo instituta elektrosvarochnogo oborudovaniya (for Vill').
(Electric welding--Study and teaching)

137-58-4-7405

Translation from: Referativnyy zhurnal Metallurgiya, 1958, Nr 4, p 154 (USSR)

AUTHOR: Getman, M.G.

TITLE: Manufacture of Equipment for Electric Arc Welding in Leningrad (Proizvodstvo oborudovaniya dlya elektrodugovoy svarki v Leningrade)

PERIODICAL: V sb.: Svarochnoye proizvo. Leningrad, Lenizdat 1957 pp 86-102

ABSTRACT: Equipment for arc welding manufactured by the Leningrad Elektrik Works and developed by the VNIIESO is described: single-terminal DC outfits PS-300, PS-500, ABS-300, powered with an internal combustion engine, PAS-400 for underwater welding and cutting, the PSO series for 120, 300, 500, and 800 amps, the VSS-120 with a selenium rectifier, and the SPG-100 with a germanium rectifier, the multi-terminal PSM-1000 with 6 ballast rheostats, and the PS-100 high frequency transformer. The PS-500-1 generator of higher rpm and a transformer for 500 and 700 amps with Al windings are under development. The plant is making the new TSDA-500-3 transformer capable of adjusting current from 50 to 600 amps for the URSA-600 Ar arc set. Modernized

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137-58-4-7405

Manufacture of Equipment for Electric Arc Welding in Leningrad

flexible-electrode automatic welders, model ADShM-500, semi-automatic models PODShM-500 and PSh-5-U, and the small-size ADS-500 portable machine are in serial production for automatic and semiautomatic welding. Some welding sets have been re-equipped for work in the tropics. A number of specialized automatic machines have been developed and are in production: the ADSD-500 for submerged 2-arc and slag-puddle welding, the ADUK-100 for carbon electrode inert-gas welding, the ADSK-1000 for submerged welding of automobile wheel rims, the ADTR-300 for welding 50-60 mm diameter tubes the ADBK-300 for welding cylindrical parts together, the ADOB-300 to weld oval housings for oil transformers, the ADTsP-300 for submerged welding of longitudinal nonmagnetic seams of steel cylinders with a Cu electrode, the ADN-500 for submerged hard facing of circular surfaces 50 to 350 mm in diameter, the UDSSh-2 for submerged arc welding or welding with shielding washers of studs of 4 to 20 mm diameter. The URSA-600 and PDShA-500 for inert-gas arc welding with consumable electrode are being modernized. The AGES-75 for atomic hydrogen welding is being readied.

V. S.

1. Arc welding equipment--Manufacture--USSR

Card 2/2

SINITSYNA, Ye.V.; GET'MAN, N.S.; VIDENSKIY, I.G.; KOGAN, Ye.I.; SHIYANOV, P.G., red.; SEVRYUKOV, P.A., tekhn.red.

[Kursk Province; bibliography] Kurskaia oblast'; bibliograficheskii ukazatel'. Kursk, Kurskoe knizhnoe izd-vo, 1959. 184 p. (MIRA 13:8)

1. Kursk (Province), Upravleniye vnutrennikh del. Arkhivnyy otdel.
(Bibliography--Kursk Province) (Kursk Province--Bibliography)

KOMI[illegible], [illegible], VINGRSKIY, I.S., [illegible]MAN, [illegible], inzhener-ekonomist

[illegible] (MIRA 17:2)

1. Donetskiy nauchno-issledov tel'skiy ugol'nyy institut (for Fedrashov, Vinerskiy).

GETMAN

Concentration of finely interspersed poor tin ores N. P. Titkov and S. L. Getman. *Tsvetnye Metal.* 20, No. 6, 35-40(1947); cf. *C.A.* 41, 1065e. The subject of this investigation was an ore in which the valuable components were cassiterite and stannite. These were interspersed in sandstone and chlorite-sericite shale. Cassiterite was found infrequently. It formed aggregates of 0.001-0.45 mm. with a predominant size 0.05-0.15 mm. Stannite was found enclosing sphalerite and in veins of 0.001-0.015mm thickness. The ore was freed of 42% of its gang at the mine. In the picked ore 14.4% of total Sn was the sulfide. The optimum size for Sn recovery was <2 mm. Finer grinding reduced the Sn in the tailings but increased the vol. of fines and the loss of Sn in it. The concen. of less than 1 and less than 0.5 mm. particles after desliming was tested in jigs and on tables. Jigging proved preferable. To treat the middlings of 65 mesh, a sluice was found preferable to tabling. This was true also for middlings of 100 mesh. The combined concentrate was tabled. The product was roasted for 2½ hr. at 840° and passed through a magnetic separator. The final product contained 42.61% Sn and this amounts to an extn. of 50.97%. Flowsheet is given. M. Hosch

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

GETMAN, T.N., akusherka (Moskva)

Results of sponsorship. Fel'd. i akush. 21 no.2:32-35 F '56.
(MLRA 9:5)

1. Poliklinika imeni 1 maya, Kalininskaya zheleznaya doroga.
(OBSTETRICAL NURSING) (PREGNANCY)

GET'MAN, T. YE.

34229. Get'man, T.Ye.: Starchevskaya, A.D. Konstanty Neustoychivosti Medzykh Soley Aminokislot. Kriminalistika i Nauch.-Sudeb. Ekspertiza. Sb. Z. Kiyev, 1949, C. 181-89

SO; Knizhnaya Letopis' NO. 6, 1955

CA

PROCESSES AND PROPERTIES

Preparation of phosphorescent substances. VIII. Boric acid. 2. N. F. Zhirov, T. E. Get'man and E. Va. Matenko. *J. Applied Chem.* (U. S. S. R.) 7, 1392-97 (1934); cf. C. A. 29, 3452°.—Improvements are made in the purification of B_2O_3. The following types of hydrocarbons were applied as activators: Hydrocarbons condensed through the methane C, heterocyclic compds., phenolphthalein, Na *p*-toluenesulfonate, Na *p*-phenolsulfonate, anthranilic acid and diphenylamine. The Urbe rule on the shifting of the fluorescence towards the long waves with the increase in the number of concd. rings does not apply in this case. No conclusions can be derived on the basis of the materials tested as to the relation of color, intensity and duration of luminescence to the structure of the activators. The luminophore, when activated with phenolphthalein, has a pink color; after extn. of the powder with EtOH (in the cold) it loses its coloring, which is transferred into the soln. to become colorless after boiling. This indicates the presence of a free quinoid form of phenolphthalein. The luminescent complex may have the formula $(2n + k)HBO_2.(n + l)B_2O_3$, $(k \geq l)$. The B_2O_3 luminophores have open chains, the sulfides, closed chains. The H_3BO_3 luminophores occupy an intermediate position by their properties, being almost pure organoluminophores in one respect and through B_2O_3 and BN having connection with crystalloluminophores of the type of alk. earth sulfides.

A. A. Boehtlingk

A56 SL4 METALLURGICAL LITERATURE CLASSIFICATION

GERMAN. [illegible]

The preparation of phosphorescent substances. IX. X-ray luminophores. N. F. Zhirov, T. E. Get'man and F. Ya. Matenko. *J. Applied Chem.* (U. S. S. R.) 8, 848-65 (in English 865-71) (1935); cf. *C. A.* 30, 5740[9]. The characteristic feature of the x-ray luminescence is the absence of org. x-ray luminophores. The vitreous state of many luminophores and x-ray luminophores is not confined to the limits of the theory of the deformation of crystal lattices. It is assumed that in addn. to the accepted chain structure of the centers characteristic for the vitreous luminophores there also exists an activator in the form of an assocn. of org. mols. or colloidal particles of free elements. The structure of the vitreous luminophores can be explained by means of the theory of deformation of the lattice of the crystalluminophores occurring through an orientation of the mols. through the influence of the activator as well as through the effect of light. X-ray luminophores are not formed with Zn_2SiO_4 within the temp. range of 800-1200°, regardless of the application of flux and a prolonged calcination. Na silicate used in the expts. was treated with H_2O_2 and H_2S in the presence of $NaC_2H_3O_2$ and pptd. with a small amt. of $ZnSiO_3$. $2ZnSiO_3$ having greenish luminescence with x rays can be obtained by activation with Mn. Among the 1 compds. the highest x-ray luminescence was observed with uranyl fluorids, which had the compn. $UO_2F_2 \cdot 4NH_4F$. The yields and the qualities of the latter are improved by pptg. with alk. This permits the prepn. of a finely crystal. product with good x-ray fluorescence properties. The K and Na salts have similar properties. In their intensity the uranyl fluorides are inferior in the following decreasing order: Zn_2SiO_4, $BaPt(CN)_4$, $UO_2F_2 \cdot 4NH_4F$, $UO_2F_2 \cdot 4KF$, $UO_2F_2 \cdot 4NaF$. The last two salts have no practical value.

$UO_2F_2 \cdot 4NH_4F$ is fluorescent in silent discharges in the presence of air (at atm. pressure). Forty-three references.

A. A. Boehlingk

A.S.M.-S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

5(1,4) SOV/3413

Akademiya nauk Ukrainskoy SSR. Institut obshchey i neorganicheskoy khimii

Raboty po obshchey i neorganicheskoy khimii, vyp. 2 (Papers on the Chemistry of Solutions and Complex Compounds, Nr 2) Kiyev, 1960. [illegible] p. Errata slip inserted. 2,000 copies printed.

Resp. Ed.: Ya.A. Fialkov (Deceased) Corresponding Member, Ukrainian SSR Academy of Sciences; Ed. of Publishing House: N.S. Pokrovskaya; Tech. Ed.: M.I. Yefimova.

PURPOSE: This book is intended for research scientists, teachers in schools of higher education and technical schools, aspirants, and students of advanced chemistry courses.

COVERAGE: The collection contains 9 articles which review work conducted at the Institute for General and Inorganic Chemistry, Ukrainian Academy of Sciences, on electrolysis aqueous and nonaqueous solutions, the chemistry of complex compounds,

AVAILABLE: Library of Congress

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